

Chapter Two – Project Purpose and Need



PROPOSED ACTION/PURPOSE AND NEED STATEMENT

2.1 Proposed Action

The Federal Highway Administration (FHWA) and the Kentucky Transportation Cabinet (KYTC) are evaluating a segment of the Transamerica Transportation Corridor in Pulaski and Laurel Counties, Kentucky for construction. The proposed project consists of a limited access interstate facility approximately 28 miles in length connecting Somerset, KY to the west and I-75 to the east. The new highway will provide a continuous, safe and efficient facility with increased mobility between I-65 and I-75. The project vicinity is shown in figure 2.1-1.

2.2 Proposed Project

The proposed project would construct a four-lane limited access interstate facility between Somerset, Kentucky and London, Kentucky. The highway would be designed and constructed to interstate highway standards.

2.2.1 Typical Section:

The design criteria specified to date for I-66 are: Design Speed – 70mph; Pavement – 2 Lanes in each direction at 12ft per lane; Median – 60ft Depressed; Shoulder – 12ft, 10ft paved (outside); Maximum Superelevation – 8.0%; Ditch Slope – 18ft at 6:1; Minimum Allowable Curve Radius – 1810ft; Minimum Curve Radius Used – 2000ft; Max Grade – 4%; Minimum Stopping Sight Distance – 730ft.

Figure 2.2.1-1 at right is a graphical depiction of a typical section for the proposed I-66 and includes the design parameters previously described.

2.2.2 Logical Termini, Independent Utility and System Linkage

The western project logical terminus (end point) has been established to link with the Somerset Northern Bypass project in Pulaski County, Kentucky, in close proximity to KY 80. The Somerset Northern Bypass is also a segment of the Transamerica Corridor. The eastern terminus has been established to link with Interstate 75, between the cities of London and Corbin

in Laurel County. In conjunction with the Somerset Northern Bypass, this project will provide a high speed interstate route linking I-75 to the Louie B. Nunn Parkway and on to I-65. Interstates 75 and 65 are major interstates that run north and south throughout Kentucky. The new facility will enhance regional mobility through the creation of an interstate to interstate link within the project region.

2.3 Project Setting and Existing Conditions

2.3.1 Project Setting

The project area is located in Pulaski and Laurel Counties, both of which lie in south-central Kentucky.

Pulaski County, formed in 1799, is the eastern-most county in the Pennyroyal region of the state, which is characterized by its karst features and includes Mammoth Cave National Park. Pulaski County occupies an area of approximately 660 square miles and elevations range from 723 to 1,680 feet above sea level. The county seat is Somerset, Kentucky. The majority of Pulaski County is rural, with Somerset as the main urbanized area of the county. The majority of land within the project corridor is rural agricultural. Urban land uses include residential, commercial, industrial, retail and service-oriented businesses. Residential and commercial land uses radiate outward from Somerset along the major thoroughfares. Public and semi-public facilities in the area include marinas, cemeteries and the airport.

Laurel County was formed in 1826 and lies in the Eastern Coal Field region of the state, which extends from the Appalachian Mountains westward across the Cumberland Plateau. As implied by its name, coal mining is the major industry in this region. Laurel County occupies an area of approximately 435 square miles, and elevations range from 723 to 1760 feet above sea level. The county seat is London, Kentucky. Land use patterns of Laurel County are typical of other areas of the State with similar environmental and economic characteristics. The greatest concentration of mixed-use development, including government, commercial and residential, occurs in the downtown business districts of London and Corbin. Land use density decreases in a radial pattern moving out from the central business district, with the exception of the major thoroughfares. Along the major roadways of the county, land use is denser with concentrations of

industrial and commercial establishments in the vicinity of the I-75 interchanges.

2.3.2 Existing Conditions: Land Use

Pulaski County: The majority of Pulaski County is rural, with Somerset as the main urbanized area of the county. The majority of land within the project corridor is rural agricultural, with the main crops being corn, soybeans, wheat and tobacco. Cattle and hogs form the majority of livestock farmed in the project area.

Urban land uses include residential, commercial, industrial, retail and service-oriented businesses. Residential and commercial land use radiate outward from Somerset along the major thoroughfares. Public and semi-public facilities in the area include marinas, cemeteries and the Somerset-Pulaski County Airport.

Laurel County: Land use patterns of Laurel County are typical of other areas of the State with similar environmental and economic characteristics. The greatest concentration of mixed-use development, including government, commercial and residential, occurs in the downtown business districts of London and Corbin. Land use density decreases in a radial pattern moving out from the central business district, with the exception of the major thoroughfares. Along the major roadways of the county, land use is denser with concentrations of industrial and commercial establishments in the vicinity of the I-75 interchanges.

Residential land use accounts for the majority of the developed lands in the area. Residential use includes both single and multi-family use, with single-family being the predominate use. Residential development is usually in close proximity to commercial areas, and typically fills in the areas between major roadways in both named developments and along local streets. Residential land use along major roadways includes isolated residences.

Commercial land use occupies a substantial amount of the developed lands in the project area. The downtown business districts contain many of these commercial establishments. In addition to the downtown business districts, there are additional areas of concentrated commercial establishments distributed throughout the study area.

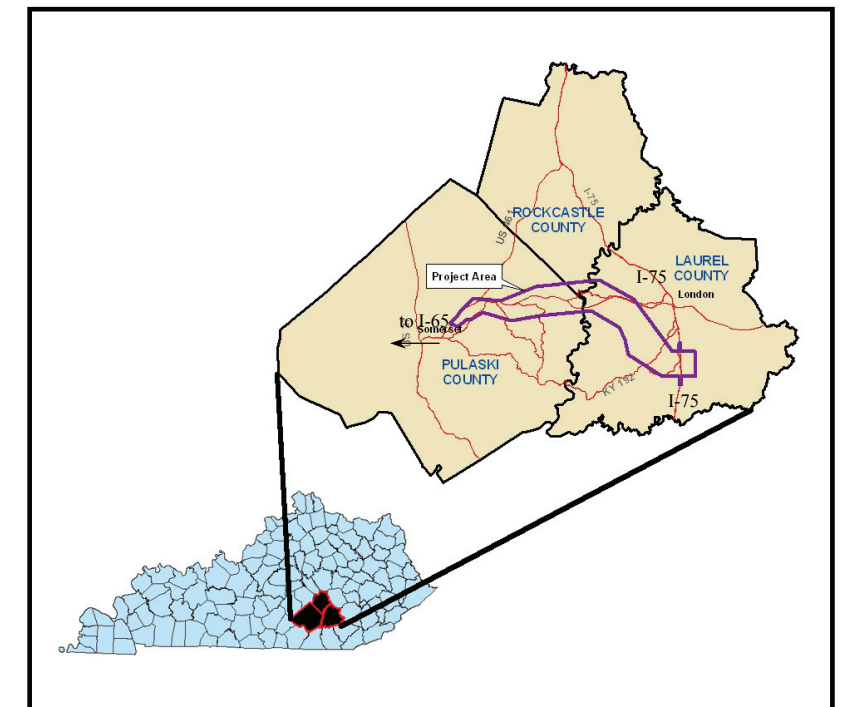


Figure 2.1-1 – Interstate 66 Project Vicinity

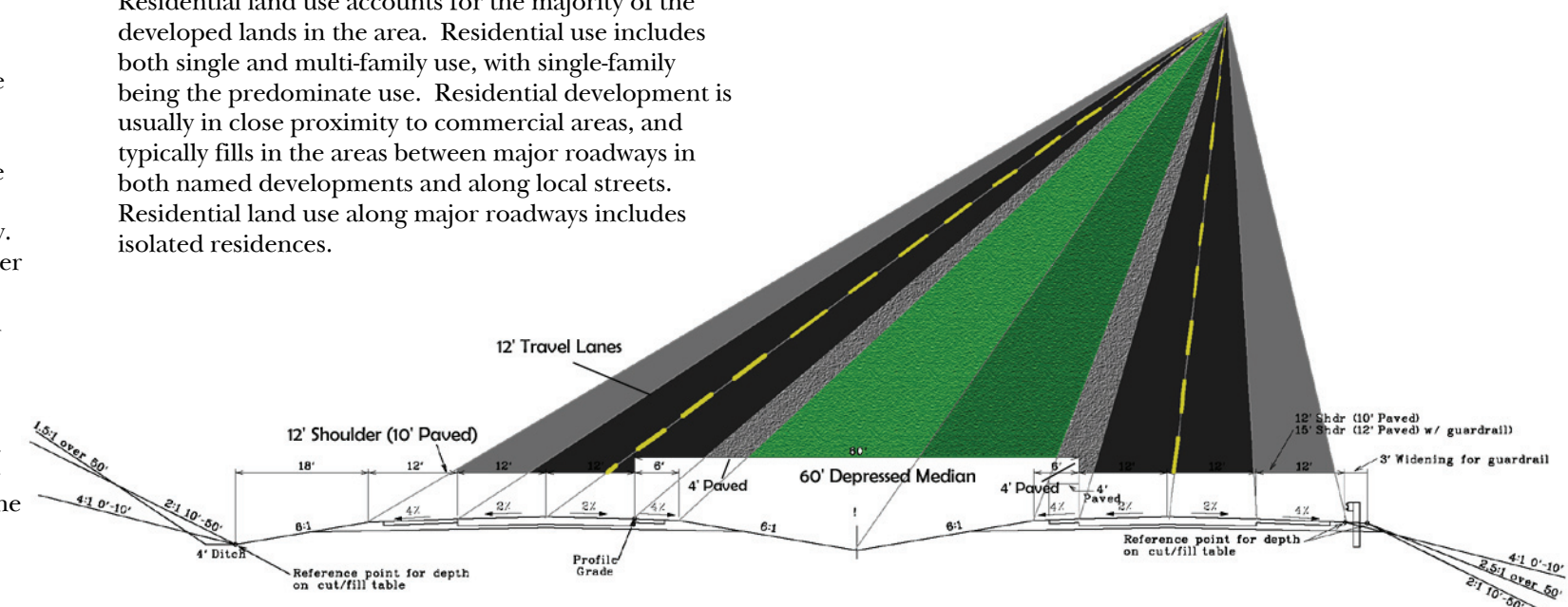


Figure 2.2.1-1 – I-66 Depressed Median Typical Section

The areas surrounding the two I-75 interchanges are examples of these outlying commercial centers.

Industrial land use is generally concentrated in six distinct districts within the study area, each of which is located along a major thoroughfare with easy access to the I-75 interchanges. Three of the industrial areas are within the city limits of London.

Public and semi-public uses include schools, parks, governmental buildings, cemeteries, and churches, which are distributed throughout the study area.

Open/Agricultural land uses comprise the remainder of the lands in the study area. This land use type is typically situated on the outskirts of the project area and occupies the majority of land use in the unincorporated portions of Laurel County.

2.3.3 Existing Conditions: Topography

The I-66 corridor is situated in three distinct physiographic zones; the Mississippian Plateau, the Cumberland Plateau and the Pottsville Escarpment, which divides the two. Regional geologic and hydrologic forces have resulted in the “hilly” terrain present throughout the corridor. Consequently, the terrain has directly influenced factors such as land usage patterns and road systems.

At the western end of the study area near Somerset, lays the Mississippian Plateau, which is characterized by an easily recognizable knob landscape. This area can be described as large wooded hills rising above rolling pastures and farmlands. Due to the steep slopes of the knob formations, farms, roads and residences occur mostly on the lower, rolling terrain, to which the steep, wooded knobs form a backdrop.

Moving eastward in the study corridor, you travel upward and through the Pottsville Escarpment, which is marked by the Rockcastle River, and it’s (primarily) eastern tributaries. This formation, also known as a “scarp”, is defined as a line of cliffs produced by erosion or geologic faults. The steep-sided narrow ridges and creek bottoms of the area characterize the scarp. Rock outcroppings, cliffs and cave openings are exposed along and above the creeks in several locations. Due to the severe topography, little farming activity or development has occurred through this section of the study corridor. The land is mostly

forested and is contained in the Daniel Boone National Forest and the DBNF proposed forest purchase areas.

Finally, in the eastern-most portion of the study area near London, the study area transitions to the Cumberland Plateau. The streams of this area are less deeply etched and the ridge tops are wider and flatter than those of the Pottsville Escarpment. Many of the wider ridge tops have been cleared, with much of the land in open pasture and croplands, with scattered farm buildings and residences. Moving further eastward, ridge tops become broader and streams become shallower to create a more uniform rolling landscape.

2.3.4 Existing Conditions: Economic Setting

The project area is located in the Appalachian region which historically has been plagued by high unemployment rates, low per capita income and large numbers of Appalachian residents living in poverty. The economic health of the project area can be shown through study of these factors as discussed below.

2.3.5 Economic Factors, Past and Present

In the mid 1960s Congress created legislation to address the persistent poverty and growing economic disparity of the Appalachian Region. In the 1960s one in every three (33.3%) Appalachians lived in poverty and per capita income of Appalachian residents was only 77% of the residents’ income of the rest of the United States. High unemployment rates drove Appalachian residents to leave their homes and seek work in other regions.

Subsequent legislative directives formed the Appalachian Regional Commission (ARC), whose mission was to study the disparity of the region and support economic and social development in the Appalachian Region. The ARC compiles data on the Appalachian counties and assesses the economic status for the county based on the following factors: unemployment rates, per capita market income and poverty rates. Counties are classified as *Distressed* - (most economically depressed) having unemployment rates 1.5 times the national average; a per capita income that is 66.6% or less of the national average and poverty rates 1.5 times the national average (or 2 times the poverty rate and qualify on one of the other two

factors), *Transitional* - having rates below the national average for one or more of the three factors but do not satisfy the criteria of the distressed category, *Competitive* - having a three-year average unemployment rates and poverty rate equal to or better than the national average; and a per capita income that is between 80% and 99% of the national average, *Attainment* - having economic indicators that are equal to or better than the national averages.

In 2004 the ARC status for Pulaski County was Transitional¹. The 1999-2001 average unemployment rate was 5.3%, in comparison to 4.3% for the Nation. The per capita income in 2000 was \$15,615 which is 60.8% of the Nation’s average. The poverty rate was 19.1%, which is 54.2% higher than the U.S. poverty rate.

In 2004 the ARC status for Laurel County was Transitional. The 1999-2001 average unemployment rate was 4.7%, in comparison to 4.3% for the Nation. The per capita income in 2000 was \$15,713 which is 61.2% of the Nation’s average. The poverty rate was 21.3%, which is 71.7% higher than the U.S. poverty rate.

The ARC status for the ten adjacent counties, (Casey, Russell, Lincoln, Wayne, McCreary, Whitley, Knox, Clay, Jackson and Rockcastle), are averaged for a regional view of the economic status in the project area. The 1999-2001 average unemployment rate was 6.7%, in comparison to 4.3% for the Nation. The per capita income in 2000 was \$10,790 which is 42.0% of the Nation’s average. The poverty rate was 28.7%, which is 131.5% higher than the U.S. poverty rate. Eight of the ten counties are categorized as Distressed with Rockcastle and Lincoln County’s status as Transitional. The ARC designations (blue for transitional and green for distressed) are shown in figure 2.3.5-1 at right.

The project area and adjacent counties have unemployment rates that are higher than the national average, per capita incomes that are well below the national average, and poverty rates that are, on average, over two times the national average.

The per capita income, unemployment rates and poverty rates are shown in figures 2.3.5-2 and 2.3.5-3.

¹ <http://www.arc.gov/index.do?nodeId=56>

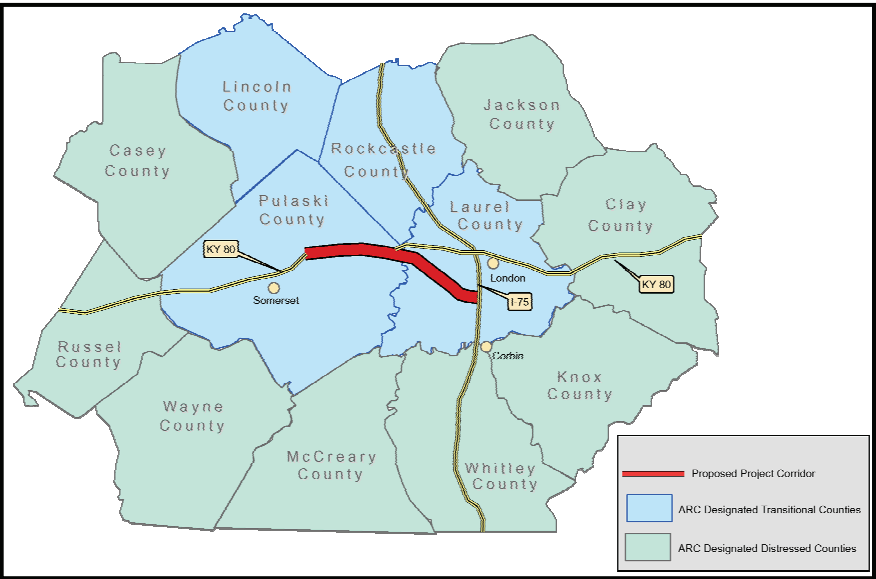


Figure 2.3.5-1 – ARC Economic Statuses for the Project Area

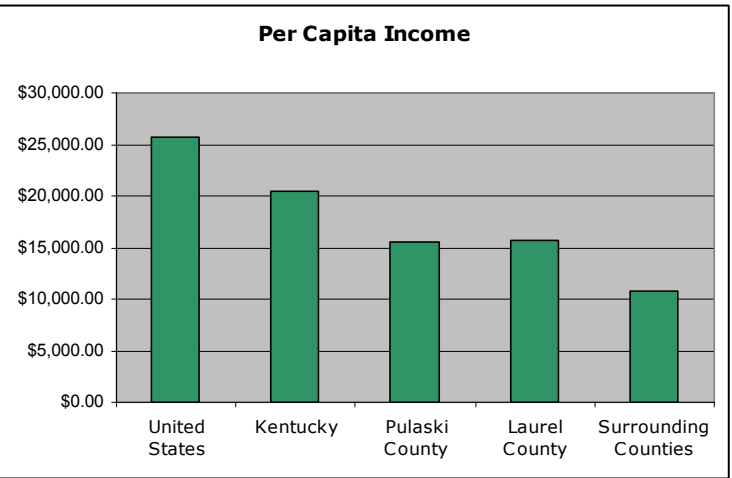


Figure 2.3.5-2 – Per Capita Income for the Corridor is Substantially Less than Kentucky and the Nation

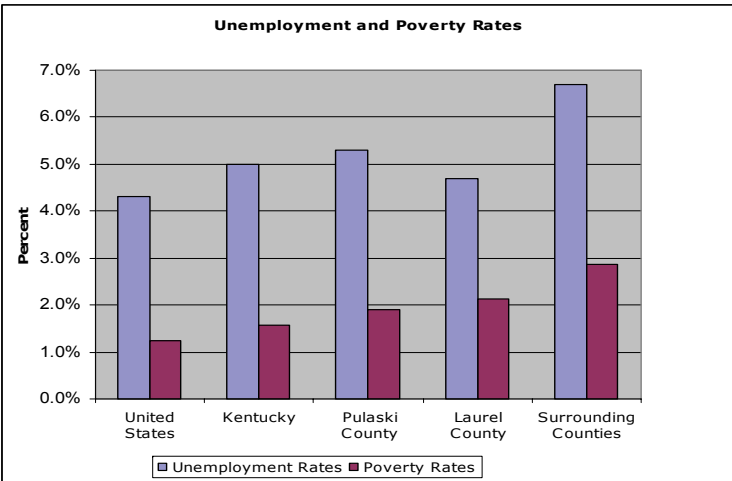


Figure 2.3.5-3 – Unemployment and Poverty Rates are Higher in the I-66 Corridor than in Kentucky and the Nation

2.3.6 Existing Conditions: Transportation Facilities

The existing facility that serves to connect the cities of Somerset and London is Kentucky 80 (KY 80). KY 80 is a 2-lane, partially controlled access facility serving as the major east-west transportation route between Somerset and London (see figure 2.3.6-1 on the following page). Studies of the current facility have demonstrated that deficiencies exist in the facility as a primary transportation corridor. Deficiencies include: poor roadway geometrics for portions of the route, and future capacity issues including substantial increases in vehicle delay and decreases in speed.

2.3.7 Traffic Volumes and Future Travel Demand

The (2000) I-66 Southern Kentucky Corridor study² analyzed past and future traffic conditions in the study area. The study found that as of 1998 the portions of KY 80 within the study area were operating at acceptable levels of service, but by the year 2030, substantial increases in vehicle delay and decreases in speed are likely to occur. The study indicated that the ability to maneuver along KY 80 is predicted to be severely restricted by the year 2030. Table 2.3.7-1 summarizes the current and future travel demands on KY 80. The travel demands shown in Table 2.3.7-1 are categorized by Level of Service (LOS).

The LOS is a quantitative and qualitative measure of traffic operations and conditions which account for the effect of several factors, including: traffic, truck volumes(as a percentage of total), speed (design and actual), travel time, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating costs. LOS ratings range from “A” to “F”, with “A” being the highest level. General descriptions of LOS are given below;

- A: Free flow operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream.
- B: reasonable unimpeded operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome.

² I-66 Southern Kentucky Corridor between the Louie B. Nunn (Cumberland) and Daniel Boone Parkways, Kentucky Transportation Cabinet, June 2000

C: Stable operations causing some tension for motorist. The ability to maneuver and change lanes in mid-block locations is restricted along with noticeable queues (lines) at intersections.

D: Small increases in flow cause substantial increases in delay and decreases in arterial speed. The ability to maneuver along the arterial is severely restricted.

E: Significant delays and average travel speeds of less than one-third the free-flow speed are experienced along the arterial segment.

F: Intersection congestion, long delays and extensive queuing along the arterial cause for extremely low free-flow speeds and standstill conditions for motorists.

2.4 Roadway Deficiencies and Safety

2.4.1 At-grade intersections:

There are numerous at-grade intersections of secondary roadways with KY 80 in the project corridor. At-grade intersections of a secondary roadway with KY 80 create the possibility for various crash scenarios, including right-angle crashes. State and national highway studies have shown that right-angle crashes are the most severe and have the highest probability for fatalities. Engineering studies on at-grade intersections at Iowa State University³ shows that the overall severity of crashes at most rural expressway intersections are less dependant on the traffic volumes on the main roads than on the volumes on the secondary roads. The research indicates that the crash, crash severity and crash fatality rates increase with increasing minor roadway traffic volumes, indicating that crashes are occurring more frequently and becoming more severe as traffic increases on the side roads. Moreover, the analyses demonstrate that as side road traffic volumes increase, the percentage of right-angle crashes increase.

The study³ investigated the ten highest-severity intersections and compared the data with the ten lowest-severity intersections and found that at the intersections with the highest-severity, the traffic volumes on the side road were above the overall

³ http://www.ctre.iastate.edu/pubs/tech_news/2004/sep-oct/crash_data.htm

average. Table 2.4.1-1 shows the approach ADT used in the study and Table 2.4.1-2 shows comparative ADT from the KY 80 corridor.

The study concludes that the most problematic intersections are those with high side road traffic volumes or where side road volumes are highly peaked. A typical example of peaked traffic is rural commuting to jobs. Other potential problems include; where side road drivers’ ability to judge gaps in traffic is hindered by horizontal or vertical curves on the main road, or with commercial development (gas stations, convenience stores, etc.), where additional turning movements and higher volumes create more opportunities for crashes.

The existing KY 80 corridor has at-grade side road intersections with predicted future volumes that could cause an increase in the number of severe accidents for vehicles entering the KY 80 facility. Those locations include, but are not limited to the KY 80 intersection with KY 461 and KY 80 with KY 1956.

The continued use of KY 80 to foster economic opportunities for the surrounding distressed counties or to support and promote increased travel demand due to tourism, runs counter to ensuring the safety of motorists where at-grade intersections exist. Peaked travel from surrounding counties for employment opportunities and holiday/weekend leisure travel would increase traffic levels on roads entering KY 80 and could lead to increased crash rates, and potentially fatalities, according to the at-grade intersection study data.

Table 2.4.1-1 – ADT for Crash Severity Analyses³

Roadway Analysis Type	Avg. ADT on Major Roadway	Avg. ADT on Side Road
Low Crash Severity Intersections	20,360	424
High Crash Severity Intersections	11,490	2,300
Avg. for all intersections with at least 1 crash	10,840	1,362

From 2.3.7 - Level of Service for segments of KY 80 in 2030 is D or F, increasing travel time, delays and congestion along KY 80 in the future. Poor LOS also affects safety.

From 2.4.1 - At-grade intersections pose a crash risk with increasing severity as side road volumes increase. Peak travel due to commuting and/or tourism increases the traffic entering KY 80 from side roads and can lead to increased crash rates due to at-grade intersections.

From 2.4.1 - A fully controlled interstate facility would not have at-grade interchanges, eliminating right angle crashes and provide a safer facility for commuting to employment opportunities to/from surrounding counties, as well as increasing safety during peak recreation travel.

Table 2.3.7-1 – Current and Future Travel Demand with LOS

Route	County	Crossroad Description	1998 AADT	1998 LOS	2030 AADT	2030 LOS
KY 80	Pulaski	KY 1317 to Pulaski County Line	6,400	B	14,200	D
	Laurel	Laurel County Line to KY 1535	6,600	B	14,700	D
		KY 1535 to I-75	15,400	B	37,300	F

Source: I-66 SKC Corridor Study

Table 2.4.1-2 – KY 80 No-Build Side Road Volumes

Roadway or Side road	2004 ADT	2030 ADT
KY 80	6680-19200	10400-31900
KY 461	8750	13000
KY 1956	2640	4000
KY 1675	715	1300

Source: I-66 Somerset to London Traffic Forecasts (2004)

Roadway Deficiencies and Safety (continued)

2.4.2 Traffic Safety:

Crash data from 1995 through the present demonstrates the need for a reduction in the high-accident rates and a reduction in fatalities, injuries and property damage. The I-66 Southern Kentucky Corridor study investigated crash data for various segments along KY 80. A roadway segment is considered to have a high accident rate when the *actual* annual accident rate (reported as accidents per 100 million vehicle miles traveled) is higher than the critical accident rate. The critical accident rate is the maximum accident rate one might expect to occur on a road, given the average statewide accident rates, type of roadway, length of section and average annual daily traffic (AADT) volume. The ratio of *actual* annual accident rate to the critical accident rate is known as the critical rate factor and it is a measure of accident frequency. Any portion of a roadway with a critical rate factor greater than 1.0 is considered to be a high accident location. High accident locations are simply areas of our roadways where the number of accidents is larger than the number of accidents that research and crash history say should occur on that roadway.

The (2000) I-66 Southern Kentucky Corridor presented the accident rates along KY 80 and concluded that high-accident locations account for about 28% of the length of KY 80 in the project corridor. The future increase in traffic volumes will add to the vehicle miles traveled along KY 80, creating the potential for increases in high-accident rates and locations. High critical rate factor locations along KY 80 are shown in table 2.4.2-1.

It should be noted that even for an instance where the critical rate factor is below 1.0, there is still the potential for accidents resulting in property damage, injury or death. For a roadway segment in our state of a classification or type *where more accidents are expected* there is the potential for a critical rate factor of less than 1.0 in spite of a number of accidents, yet one could not argue that a reduction in accidents would not be of benefit to the welfare of those traveling the facilities as well as economically beneficial. As an example, the study showed that the stretch of KY 80 from milepost 9.769 to 10.568 had 9 injury accidents and 31 accidents involving property damage only, yet the critical rate factor was only 0.831 and therefore not

labeled as a high-accident segment of KY 80. The Critical Rate Factors discussed identify segments of a roadway where crashes are most likely to occur but do not speak to the number of crashes for a roadway as a whole and economic costs and potential loss of life for each accident on our road systems. The total number of accidents for a facility should be considered in addition to those critical segments that need solutions. For the 36 month period analyzed in the I-66 Southern Kentucky Corridor the following accident statistics were reported for KY 80; 8 Fatal Accidents, 387 Injury Accidents and 990 Property Damage Only Accidents.

The construction of a facility that would reduce the number of deaths, injury and property damage would be beneficial to the welfare of those who use the corridor.

The Kentucky Transportation Center (KTC) research report KTC-98-16⁴ analyzed traffic accident data from 1993 to 1997 and found that interstate facilities were the safest of all highway types in the state. Accidents on Kentucky interstates numbered only 23% of accidents on two-lane roads, only 21% of three-lane roads and only 26% of four-lane undivided roadways. Interstate facilities had approximately 75% fewer accidents than these three roadway types. In addition interstate facilities had 64% fewer fatalities than the average of these three roadway types.

⁴ Analysis of Traffic Accident Data In Kentucky (1993-1997); Kenneth R. Agent and Jerry G. Pigman, 1998



Figure 2.3.6-1 – Existing Facility (KY 80) Between Somerset and London is Predominantly 2-Lanes with Many At-Grade Intersections

Table 2.4.2-1 – High Accident Locations on Existing KY 80

Critical Rate Factors for KY 80						
County	Begin MP	End MP	Length (Miles)	1997 AADT	Number of Lanes	Critical Rate Factor
Laurel	11.380	11.680	0.300	5,680	2	1.000
	13.150	20.522	7.372	3,500	2	0.966
	20.522	21.225	0.703	2,770	2	1.553
	0.000	1.796	1.796	1,860	2	5.551
	1.796	2.315	0.519	2,310	2	1.778
	7.491	9.256	1.765	2,250	2	0.910
	13.575	16.205	2.630	5,950	2	0.969
	16.205	17.248	1.043	8,280	2	1.080
	18.850	19.016	0.166	12,000	2	1.098
	19.016	19.350	0.334	10,600	2	1.438
	20.318	20.710	0.392	9,690	2	1.251
	20.710	21.521	0.811	6,100	2	0.924
	28.177	28.377	0.200	7,310	4	0.925
KY 80 Miles	64.797	Total Miles with CRF>1	18.031	Percent of KY 80 with CRF>1	28%	

From 2.3.2 - The 2000 Corridor Study demonstrated that 28% of the length of the existing KY 80 consists of high-accident locations (critical rate factor greater than 1, see 2.3.2 for description of critical rate factor).

In addition to high-accident locations, many other segments had numerous accidents with injuries and property damage.

For the 36 month period prior to the study, there were 8 fatal accidents, 387 injury accidents and 990 accidents involving property damage only reported for KY 80.

2.5 Decision Making Documentation

The following section traces the origins of Interstate 66 and outlines the studies performed that preceded this EIS for I-66 from Somerset to London. A more detailed description of previous actions is presented in chapter 1 of this document.

2.5.1 Legislative Directive for Transcontinental Corridor:

1991

In 1991 Congress enacted the Intermodal Surface Transportation Efficiency Act (ISTEA) which provides federal assistance for highway studies, design, and construction, and contains policy to develop a National Intermodal Transportation System that is economically efficient and environmentally sound, provides the foundation for the Nation to compete in the global economy, and will move people and goods in an energy efficient manner. The ISTEA included a legislative mandate by Congress providing funding for an “Interstate 66 Feasibility Study” in 1991. The Transamerica Corridor was listed as a High Priority Corridor on the National Highway System because Congress finds that construction would:

- connect major population centers and greatly enhance economic growth
- serve the travel and economic development needs of the region
- improve the efficiency and safety of commerce and travel which would further improve economic development

The resultant product of the legislative mandate was referred to as the *Transamerica Transportation Corridor Feasibility Study* (September 8, 1994)⁵ in which the feasibility of an interstate-type highway extending from the East Coast to the West Coast was considered.

The Transamerica Corridor included areas in Kentucky that were originally defined in the 1991 ISTEA and the 1995 National Highway System Designation Act amended Section 1105 (c) of ISTEA. The Kentucky Corridor centers on the cities of Pikeville, Jenkins,

⁵ Transamerica Transportation Corridor Feasibility Study, 1994, WSA, HNTB

Hazard, London, Somerset, Columbia, Bowling Green, Hopkinsville, Benton and Paducah.

2.5.2 Transamerica Transportation Corridor Study

1994

Transamerica Transportation Corridor Feasibility Study conclusion:

The *Transamerica Transportation Corridor Feasibility Study* concluded that at the time of the study it was not feasible to implement a coast-to-coast Transamerica corridor, but did conclude that additional analysis of individual segments providing “linkage to the National Highway System and/or key elements of a state’s transportation system” may be economically feasible. This conclusion led to a regionally focused corridor study.

2.5.3 Kentucky Transportation Center Study

1997

Kentucky Transportation Center considers feasibility of Kentucky segment of the Transamerica Corridor:

The *Southern Kentucky Corridor I-66 Economic Justification and Financial Feasibility Study*⁶ was completed by the Kentucky Transportation Center in 1997. The study concluded that while I-66 was previously determined not to be feasible nationally, the implementation of a roadway which meets interstate highway standards would improve accessibility and mobility throughout the “Southern Kentucky Corridor (I-66)” and would deliver substantial economic development and quality of life benefits. This study also established priority segments for the Southern Kentucky Corridor (I-66).

The Southern Kentucky Corridor Study considered the proposed interstate corridor, linking the Louie B. Nunn Parkway (formally the Cumberland Parkway), west of Somerset and the Hal Rogers Parkway (formally the Daniel Boone Parkway), east of London. Preliminary corridor alternates presented at public meetings between 1999 and 2000, and public comments from those meetings helped define the areas

⁶ Southern Kentucky Corridor I-66 Economic Justification and Financial Feasibility, 1997, Kentucky Transportation Center

studied to determine the potential impacts this action would have on each of the proposed alternate corridors.

2.5.4 I-66 Southern Kentucky Corridor Study

2000

I-66 Southern Kentucky Corridor study investigates Southern Kentucky corridor options in June 2000 report:

The *I-66 Southern Kentucky Corridor* study² was completed in June 2000.

- It provided recommendations based on existing topography (i.e., contours, streams, subdivisions, cemeteries, highway crossings, etc.), environmental features, traffic needs, socioeconomics, estimated costs, and engineering judgment.
- Considered ten (10) corridor alternates, including the upgrade of the existing KY 80.
- Each of the alternates was evaluated, using three criteria categories: (1) traffic and socioeconomic issues; (2) environmental issues; and (3) cost estimates.
- These alternates utilized the northern, middle, and southern sectors of the study area.

This *I-66 Southern Kentucky Corridor* study identified the Somerset to London segment of the Transamerica Corridor (I-66)/Southern Kentucky Corridor as a high priority segment for the following reasons:

- Growing traffic volumes in the region between Somerset and London.
- Truck traffic in the area adding to safety concerns, since many of the two lane routes have substandard geometrics, such as narrow lane and shoulder widths and insufficient passing zones.
- An “interstate-type” facility would provide an improved, efficient interstate route which would connect the Cumberland and Hal Rogers Parkways (formally Daniel Boone Partway) linking Interstate 75 with Interstate 65.
- The need for increased accessibility and mobility to facilitate economic growth and development in southeastern Kentucky.

The study concluded with a recommendation for further consideration of the N4 alternate. This corridor is displayed in Figure 1.3 and established the study area.

A timeline of the actions preceding this study is given in Figure 2.5.4-1.

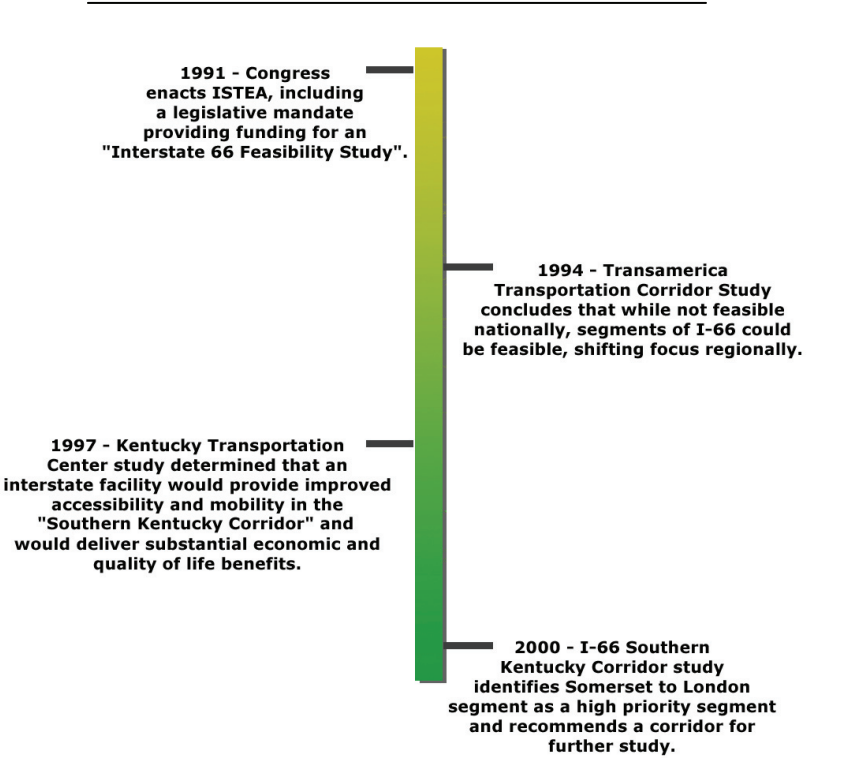


Figure 2.5.4-1 – I-66 Timeline Preceding This Study and Document.

2.6 Project Purpose

The purpose of this project is to provide improved linkage between the cities of Somerset and London, Kentucky. In addition, the proposed transportation improvement will serve to enhance the regional travel system by providing additional mobility and access within the project area, creating an interstate to interstate link between I-65 and I-75, thereby providing connectivity between the region and larger population centers. The proposed I-66 Somerset to London project is expected to provide a safe and efficient facility, prevent future traffic congestion and reduce the number of accidents, as well as contribute to the economic development along the I-66 Corridor, while fulfilling the Congressional vision for infrastructure enhancement outlined in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and subsequently the 1995 National Highway System Designation Act amended Section 1105 (c) of ISTEA.

I-66 would contribute to the economic development of this area while fulfilling the congressional vision for infrastructure enhancement outlined in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and subsequently the 1995 National Highway System Designation Act amended Section 1105 (c) of ISTEA.

2.7 Project Need

2.7.1 Economic Conditions of Project Area and Region:

*The Southern Kentucky Corridor I-66 Economic Justification and Financial Feasibility Study*⁷ (SKC I-66) indicates the need for regional economic enhancement by describing the 63 counties included in the Southern Kentucky Corridor as being, “of particular sociopolitical interest since many are economically distressed”. The counties directly in the project area, as well as the surrounding counties have high unemployment rates, low per-capita income levels and high poverty rates. Table 2.7.1-1⁸ shows these factors, as well as the ARC designation, for Pulaski, Laurel and the surrounding counties.

⁷ *Southern Kentucky Corridor I-66 Economic Justification and Financial Feasibility*; Kentucky Transportation Center, May 1997
⁸ <http://www.arc.gov> and U.S. Census Data

2.7.2 Southern Kentucky Corridor Economic Modeling:

The SKC I-66 study utilized economic and demographic models developed by the Center for Business and Economic Research (CBER) and the Bureau of Business Research at the University of Nebraska-Lincoln to assess the potential impact of the Southern Kentucky Corridor project on the earnings, employment and population growth within the corridor and region. The models were designed with a focus for evaluating impacts of highways in a non-metropolitan setting such as that found in the project corridor. The models assessed the impact of the facility on the counties that were directly (where highway is located) and indirectly (adjacent) impacted. The economic study assessed both the definable benefits and costs of the project as well as the difficult to quantify factors associated with quality of life issues arising from the project. The economic impacts measured for the SKC I-66 project are those obtained from transportation efficiency and include interrelated conditions concerning road user benefits and person income improvement benefits.

2.7.3 Economic Development Benefits:

Economic development impact benefits are evident by new economic growth that occurs along a new or improved highway corridor. Improved quality of life is also seen in the increased access of corridor residents to nearby towns or cities. Economic development impact benefits include the increase in earnings, jobs, income, and population which can result from the new highway. These changes often are the most important results of the time and cost savings of a better road system. From economic conditions shown in table 2.4, this region is obviously a place in Kentucky which will benefit from more economic growth and increased use of underutilized resources.

Southern Kentucky Corridor Economic Benefits

2.7.4 Employment and Earnings:

The SKC I-66 study showed that the potential impact of the Southern Kentucky Corridor in the region would be substantial. The SKC I-66 would bring over 57,000 person-years of work, increase the earnings in the region by \$1.75 billion each year and increase total personal income by \$2.35 billion per year. New

manufacturing jobs alone are projected to account for 30% of the net new jobs. The study found from the models that counties receiving a new highway were significantly more likely to receive new manufacturing industries. Manufacturing employment generally has the highest paid employees, and therefore an increase in personal income should be seen.

2.7.5 Road User Benefits:

The SKC I-66 study investigated road user benefits, and associated economic impacts from travel time savings, vehicle operating cost savings and accident-reduction savings. Time savings in the corridor is due to higher design speed facilities and reduced congestion, with an associated cost of persons’ time. Vehicle operating costs measure the cost of transportation including, but not limited to: fuel, oil, tires, maintenance, insurance and license. The associated cost is a function of operating speed and frequency of speed changes, with reductions producing operating cost savings. Accident costs were analyzed based on accident reductions and associated cost savings of various typed of accidents for a high speed, limited access facility. The cost savings for these factors are shown in table 2.7.5-1³.

Table 2.7.1-1 – Economic Conditions of Project Area

Location	3-Year Unemployment Rate	Per Capita Income	Poverty Rate	2004 ARC Designation
United States	4.3%	\$25,676	12.4%	
Kentucky	4.7%	\$19,957	15.8%	
Pulaski	5.3%	\$15,615	19.1%	Transitional
Laurel	4.7%	\$15,713	21.3%	Transitional
Casey	6.9%	\$11,697	25.5%	Distressed
Clay	6.6%	\$8,761	39.7%	Distressed
Jackson	5.4%	\$10,106	30.2%	Distressed
Knox	5.8%	\$10,648	34.8%	Distressed
Lincoln	4.7%	\$14,201	21.1%	Transitional
McCreary	8.7%	\$7,797	32.2%	Distressed
Rockcastle	6.1%	\$11,500	23.1%	Transitional
Russell	9.7%	\$11,821	24.3%	Distressed
Wayne	7.1%	\$10,148	29.4%	Distressed
Whitley	5.5%	\$11,219	26.4%	Distressed

Table 2.7.5-1 – Road User Benefits from Entire Southern Kentucky Corridor I-66

Present Value of Benefit Type if I-66 SKC is Built (in billions of dollars)					
	Time Saved	Operating Costs	Accident Cost	Induced Travel	Total
I-66 SKC with 70 mph design speed	2.43	0.49	2.10	.190	5.21

2.7.6 Benefits from Induced Travel:

The presence of the interstate facility would lower the cost of travel due to the reasons cited above. The lower cost of travel causes motorists to change their decisions about the number of trips they make, inducing travel. Research has shown that five minutes of travel time savings will cause an increase of three to five percent in the number of trips. Since many trips on rural highways are about 20 miles in length, it is likely that at least five minutes will be saved by driving a higher speed interstate facility. The benefits from these savings are included in table 2.5.

From 2.6 - *Project Purpose*:

- Create Regional Transportation Network
- Provide Increased Mobility Within the Region and Between the Region and Larger Population Centers, Utilizing the Connectivity of I-75 to I65
- Provide Safe and Efficient Facility
- Contribute to Economic Development
- Fulfill Legislate Mandate in ISTEA (1991 and 1995)

From 2.7 - *Project Need*:

- Improved Safety
- Increase Regional Tourism Base
- Economic Conditions in Region are Below the State and Nation
- Expand Region’s Economic Development
- Improve Resident’s Quality of Life

2.7.7 Quality of Life and Commuting Benefits:

Travel time savings due to SKC I-66 will have a major influence in increasing the quality of life to the residents of this corridor. In particular, residents’ quality of life would improve by having shorter trips to nearby colleges, universities, full-service hospitals, state/national parks and state/local offices. It allows people to visit these establishments more conveniently, and also encourages increases in frequency of trips. Improved transportation helps encourage regionalism by reducing the distance between communities. Enhanced regional planning and reduced commuting times are crucial to job opportunity expansion and reduced poverty rates in the corridor region.

2.7.8 Southern Kentucky Corridor I-66 Study Conclusions:

While the feasibility analysis investigated the Southern Kentucky Corridor in its entirety, the savings and quality of life benefits translate to areas along the corridor and are a result of the construction of an interstate type facility through Kentucky counties. The SKC I-66 study identified the highest priority section of roadway as the portion of highway between Somerset and London Kentucky, creating an interconnected facility from I-65 to I-75.

2.7.9 Appalachian Development Highway System (ADHS) and Economic Growth:

The Appalachian Development Highway System (ADHS) consists of 3,090 miles of authorized highway infrastructure development. As of the end of fiscal year 2003, 2,609 miles of the system were complete or under construction. The ADHS was created to provide the physical infrastructure to promote region wide growth in Appalachia. The ADHS is part of the Appalachian Regional Development Act of 1965, the regional planning model, implemented by the Appalachian Regional Commission (ARC). The ARC sought “to provide public works and economic development programs and the planning and coordination needed to assist in development of the Appalachian region.” The implementation of the plan involved significant transportation network improvements to provide access to areas outside of the region and within the region itself. Cumulatively in 1992, \$14 billion had been spent on ARC programs, with over 57% of the funds utilized for highways.

2.7.10 KY80 and the Appalachian Initiative:

The existing KY80 facility was developed from the ADHS program and is a part of the ADHS system known as Corridor J. Prior to the construction of the existing KY80, roadway users traveled a winding two lane facility with many geometric deficiencies (sharp curves and steep hills).

The socioeconomic conditions prior to the completion of KY80 were evidence of a distressed region. The unemployment rates were; 9.5% for Pulaski County, 10.7% for Laurel County and averaged 14.3% for the surrounding counties. The per-capita incomes (in today’s dollars) were; \$11,178 for Pulaski County, \$10,610 for Laurel County and \$8,622 for the surrounding counties. Poverty rates were; 22.3% for Pulaski County, 21.1% for Laurel County and 34.9% for the surrounding counties.

The improved facility was opened to traffic in 1982, offering a better facility for mobility between Somerset and London, Kentucky. The Figures at right include economic and travel data for 1980, as well as trends for each item since the construction of the improved KY80. Corollaries may be drawn in regard to the improvement of the transportation corridor and economic improvement. The data was gathered from historical and recent census data.

Unemployment rates dropped drastically from 1980 to 1990 as shown in figure 2.7.10-1. The development of employment opportunities from the construction of KY80 decreased unemployment in the area, yet since 1990 there has been little improvement in the unemployment rates, with the surrounding counties remaining above the Kentucky (4.1%) and national (4.0%) averages.

Per-capita income, shown in today’s dollars in figure 2.7.10-2, has risen from 1980 to present for Pulaski and Laurel counties and is higher than 1980 levels for the surrounding counties, yet the per-capita income levels were well below the 2000 levels for Kentucky (\$24,085) and the nation (\$29,469).

There has been a decrease in the poverty rates since the construction of KY80 and subsequent increase in employment opportunities, but the percent of the residents in the project area living in poverty remained disproportionately large in 2000 in comparison to

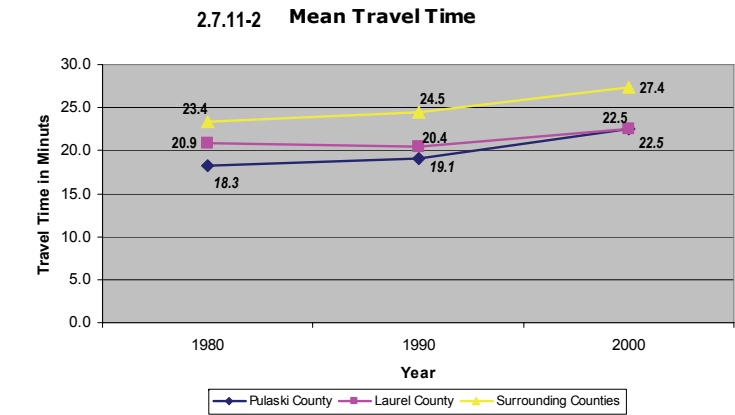
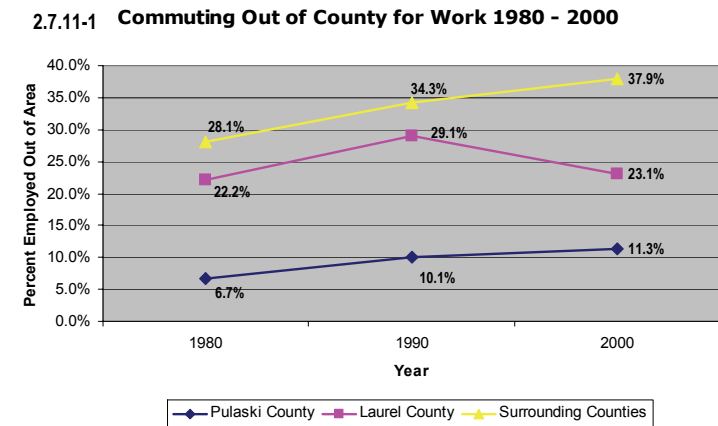
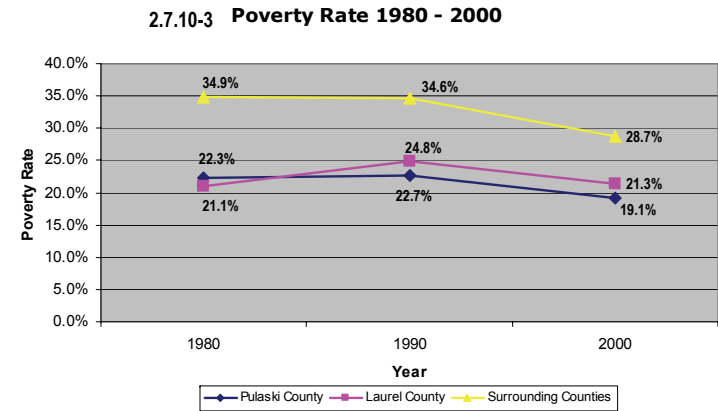
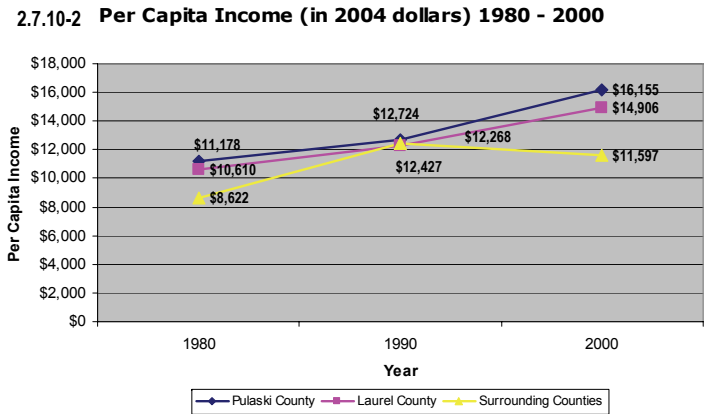
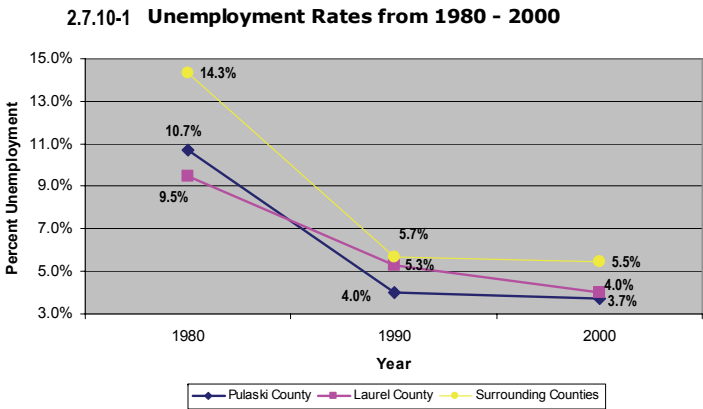
Kentucky (15.8%) and the nation (11.9%) as shown in figure 2.7.11-3.

2.7.11 Commuting Patterns and Travel Time:

The construction of an improved facility can improve access to higher paying jobs outside a person’s place of residence, creating opportunities for increased income and with development, spurred by improved facilities, can provide for an increase in employment opportunities within the county of residence. Both scenarios enable residents to have increased opportunities for employment and are of benefit to the area.

Figures 2.7.11-1 at right shows that from 1980 to 1990 there was a rise in the number of people traveling to other counties for employment but since 1990 Pulaski and Laurel counties have seen reductions in the percentage of workers commuting to other counties. KY80 provided an improved facility for travel to and from Pulaski and Laurel counties after its opening, supporting trends from 1980 to 1990, and the subsequent increase in employment opportunities in Pulaski and Laurel counties enabled residents of those counties to work where they reside (trends for Pulaski and Laurel counties from 1990 to 2000), yet the percentage of commuters in surrounding counties continues to rise.

Though the construction of KY80 provided a safer and more efficient facility than the original facility, the overall travel time related to employment for area residents has not been reduced. As outlined previously, reduction in travel time has positive economic and well as quality of life benefits for area residents.



2.7.12 Appalachian Regional Commission (ARC) and Economic Improvement:

The ARC conducted a study in 1998 to assess the effectiveness of the ARC programs and transportation improvements on the economic conditions of the Appalachian Region. The study found 801 new manufacturing plants located within 30 miles of new ADHS construction. Those plants provided 182,600 jobs in 1981. With the inclusion of smaller manufacturing plus the resultant multiplier effects, the ARC concluded that 430,000 new jobs had been created along or near the Appalachian corridors. ARC findings concluded that the per-capita income improved from 78 percent at the inception of the program to 83 percent in 1991.

2.7.13 Counties that “Got ARC” vs. Those that Did Not:

In 1995, Andrew Isserman and Terance Rephann performed an empirical analysis of the ARC effect on the stimulation of the Appalachian economy⁹. The research paper titled, The Economic Effects of the Appalachian Regional Commission; *An Empirical Assessment of 26 Years of Regional Development Planning*, addresses the criticism that questions the ARC and the ADHS contributions to the region’s growth, contending that the growth, or portions thereof, would have occurred in the absence of the ARC planning. The economic research considers empirical evidence through the use of control groups, or “sister counties” outside of Appalachia that shared similar spatial isolation, economic structure, poverty and stagnation. The Appalachian cities and their “twins” were tested to validate the twin as a control group for areas not affected by ARC programs. The growth rates of the pairs were compared over a period of time before the implementation of the ARC and a similar growth rate would indicate that the pairing were valid for post-ARC extrapolation. The control/Appalachian county pair analysis showed a valid set of control/Appalachian pairs for assessment of the economic effects of the ARC. For some control sets the Appalachian counties grew significantly more slowly than did their twins. This factor did not affect the conclusions of the analyses; conversely it merely

⁹ The Economic Effects of the Appalachian Regional Commission; *An Empirical Assessment of 26 Years of Regional Development Planning*, Isserman, Andrew and Rephann, Terance, 1995.

understates the effects of the ARC for those counties. The findings of the study are summarized here.

The studies considered 22 years of data from the Regional Economic Information System of the Bureau of Economic Analysis (BEA), and assess the growth rate for 20 different variables for each Appalachian county and its twin. The Appalachian counties grew faster than their twin did in all 20 variables. Between 1969 and 1991 total personal income and earnings grew 48 percentage points faster on average in Appalachian counties, population grew 5 points faster, and per capita income grew 17 points faster. The Appalachian counties grew more slowly in one category, residence adjustment, yet this is a positive trend and an advantage for the Appalachian region. The residence adjustment trend indicates that less income leaked out of the Appalachian counties as a result of nonresidents working there, and/or more income entered the counties as a result of county residents commuting elsewhere while residing in the Appalachian counties.

The research shows that the ARC approach (economic initiatives along with infrastructure improvement) to improving the quality of life is working for the Appalachian region.

2.7.14 Regional Growth Needed

It has been demonstrated that the project area has conditions, ranging from travel related issues to economic levels that cause the residents in the region to trail the residents in other parts of the nation, diminishing the overall quality of life. Growth in the region would serve to alleviate the strains on the residents of the region, allowing for improved financial standing and improved quality of life.

2.7.15 The Local Recognition of the Need for Growth:

Historically, Pulaski County has drawn on the workforce of surrounding counties, accommodating periods of rapid manufacturing growth. That trend persists today due to continuing economical, educational and technological advancements that benefit not only the county but the region. Economic factors for the area indicate that counties bordering Pulaski and Laurel Counties have generally experienced the same economic trends as Pulaski and Laurel Counties, demonstrating a need not only for local economic growth and development but also for

regional economic growth and development. The Progress Kentucky 2003, Comprehensive Economic Development Strategy (CEDS), for Pulaski County states:

“For the LCADD [Lake Cumberland Area Development District] to sustain regional development, it must sustain and augment regional economic development centers and an overall growth concept, and it must identify key strategies that can accomplish such goals.”

The LCADD CEDS cites the need for direct connections to the nation’s northeastern industrial heartland and to important north-south connectors such as I-65 and I-75. The CVADD Regional Transportation Concept Plan identifies economic development as an essential part of preserving the vitality of the region. In addition, the plan states that to experience substantial economic development and maximize tourism revenue the CVADD (Cumberland Valley Area Development District) region must have a transportation infrastructure that will provides access to major highways.

The LCADD Regional Concept Plan identifies the need for better access to the industrialized heartland of the nation’s east and Midwest making it more desirable to industry.

Pulaski and Laurel Counties have developed incentives to attract more business and commerce into the region. Valley Oak Business and Technology Park, a 138-acre regional park located 7-miles northeast of Somerset, has been constructed to recruit manufacturing companies into the region. Pulaski County offers improved sites in anticipation of industrial and technological development, which will in turn create a need for a larger workforce. Examples of these sites include the Valley Oak Business and Technology Park and the Valley Oak Commerce Complex East. Laurel County has developed a London-Laurel County Industrial Park, a 120-acre site located 3.3 miles west of London city limits in western Laurel County.

2.7.16 Increased Utilization of Present Resources: Labor Force:

The construction of an interstate facility, linking I-65 in the west to I-75 in the east would provide for increased accessibility to and from the region, opening the opportunity to development and increase in the

number, and quality of jobs locally (as demonstrated by the SKC I-66 study) and increased access to jobs outside to the immediate area. Increased utilization of the labor force in the region would serve to lower the unemployment rates, increase the incomes of workers, provide regional educational opportunities, and training more readily obtainable and overall increase the standing of the residents of the region.

2.7.17 Tourism and Natural Resources:

Major tourist attractions located within the general vicinity of the proposed project study area includes Lake Cumberland, Laurel River Lake, Daniel Boone National Forest and Levi Jackson Wilderness Road State Park.

The tourism industry is an important component of the economies of Pulaski and Laurel Counties. Local government and community members in both Pulaski and Laurel counties benefit from the employment opportunities and revenue generated by the growth and development of the tourism sector. Table 2.7.17-1 demonstrates that tourism is a vital component of the state’s revenue. In 2002 tourism was the third largest revenue-producing industry in Kentucky, topping \$9.1 billion. The tourism revenue in Pulaski and Laurel counties accounted for only 2% of the state’s tourism revenue in 2002 and just over 2% of tourism related employment in the state is located in Pulaski and Laurel counties.

Table 2.7.17-1 – Area Tourism Revenue and Employment

Tourism Revenue 2002	
Kentucky*	\$9,170,000,000
Pulaski County	\$92,838,639
Laurel County	\$92,387,626
Tourism Related Employment**	
Kentucky	163,486 jobs
Pulaski County	2025 jobs
Laurel County	2271 jobs

* Rounded Estimate
**Based on full time (yearly) employment
Source: Kentucky Tourism Cabinet, 2003

The wealth of recreational opportunities has provided an economic and employment base for the region that could be expanded with improved access that makes longer trips to the area’s resources from further regions more attractive.

The construction of Interstate 66 between Somerset and London would provide shorter and safer trips to recreational opportunities from within the region and from larger population centers, contributing to continued economic development attributable to the tourism industry. The tourism opportunities in the region are shown in figure 2.7.18-1.

Safety Benefits from Interstate Facility

2.7.18 Decreased Accident Numbers and Cost Savings:

The I-66 Southern Kentucky Corridor presented the accident rates along KY 80 and concluded that high-accident locations account for about 28% of the length of KY 80 in the project corridor. The future increase in traffic volumes will add to the vehicle miles traveled along KY 80, creating the potential for increases in high-accident rates and locations. Crash data from 1995 through the present demonstrates the need for a reduction in the high-accident rates and a reduction in fatalities, injuries and property damage.

The construction of a facility that would reduce the number of deaths, injury and property damage would be beneficial to the welfare of those who use the corridor. Based on accident data presented in the Kentucky Transportation Center’s report¹⁰, interstate facilities have fewer accidents per vehicle-mile of travel than minor and major arterial and collector facilities in Kentucky. By diverting some of the existing traffic to the new facility, the proposed interstate would provide accident reductions and cost savings on an annual basis. The reduction of accidents and associated cost savings is shown in table 2.7.18-1. This table is based on the reductions (analysis factors) in each accident type based on vehicles traveling on an interstate facility. The analysis factors are derived from traffic accident analyses performed by the Kentucky Transportation Research Center and the Kentucky State Police¹⁰ and represent accidents reduced per 100 million vehicle miles of travel (VMT).

2.8 Other Regional Development Initiatives

The presence of economic development initiatives in Pulaski and Laurel counties would serve to enhance the

economic gains generated from the construction of I-66. Regional projects include:

Additional segments of Interstate 66: The proposed segment of I-66 from Somerset to London, KY will provide a facility that will serve to enhance the regional travel system, providing additional mobility and access within the project area and between the region and larger population centers. The completion of additional segments of I-66 across Kentucky and the nation would further connect the region to outside opportunities for development.

Southern Kentucky Intermodal Park: The Southern Kentucky Intermodal Park is planned to provide a first-class facility with enhanced rail that would offer truck-to-rail and rail-to-truck intermodal services, along with product transfer, storage and processing capabilities. The enhanced goods transportation would provide economic opportunities for the region. The facility located southeast of Somerset, KY would provide connectivity between modes of transport. The interstate system in this region currently provides a north-south traffic flow with I-75. The main rail line for Norfolk Southern Railway is also north-south. While the Intermodal Park would provide system connectivity, the construction of I-66 would provide an east-west link to the intermodal park, further enhancing the economic possibilities of the project.

Somerset Northern Bypass: The Somerset Northern Bypass is designed to reduce the traffic congestion and distribution problems associated with the Louis B. Nunn (Cumberland) Parkway through Somerset, KY. Interstate 66 would provide a link for traffic from the Parkway, via the Northern Bypass, to Interstate 75 to the east. The combination of these facilities provides system linkage between I-75 and the Parkway and enhances regional mobility.

Valley Oak Technology Complex and Commerce Complex: The Valley Oak Technology Complex and Commerce Complex are a regional technology park and industrial park respectively. The sites, in early development and occupancy, are designed to attract high-tech and higher paying jobs to the region. Interstate 66 would provide a safe and efficient facility linking these developments to the region and large population centers, making the sites more appealing to businesses considering locating in either of the complexes.

The construction of I-66 would enhance the economic development opportunities provided by these initiatives. These initiatives are shown in figure 2.8-1.

Table 2.7.18-1 – Accident Reduction and Associated Cost Savings through Interstate Facility

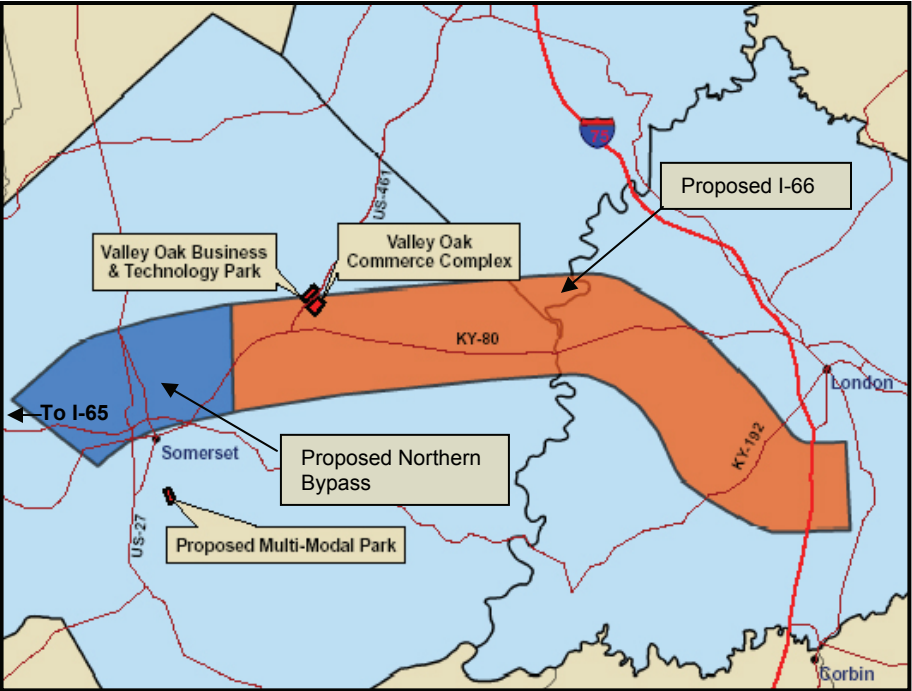
Proposed Project	Daily VMT Served	Annual Accident Reduction					Annual Cost Savings				
		Fatal	Serious Injury	Minor Injury	PDO ¹	Total	Fatal	Serious Injury	Minor Injury	PDO ¹	Total
I-66 Corridor (2010)	568,506	2.3	8	93	189	293	\$7,418,287	\$6,190,898	\$2,189,484	\$359,958	\$16,158,628
I-66 Corridor (2030)	931,741	3.7	13	153	310	310	\$12,158,058	\$10,146,452	\$3,588,413	\$589,946	\$26,482,869
Analysis Factors		1.1	3.9	44.9	91.3		\$3,250,000	\$765,000	\$23,500	\$1,900	



Figure 2.7.17-1 – Regional Recreational Opportunities

Figure 2.8-1 – New Economic Initiatives in I-66 Project Area

From 2.8 - I-66 would enhance the economic development initiatives in the region by providing improved access to the developments from within the region and with larger population centers.



2.9 Area Development Initiatives Summary

The construction of I-66 would provide a safe and efficient transportation facility for enhanced mobility within the region and between the project area and other population centers. In conjunction with other existing facilities and those proposed as Interstate 66, this project would open the region to areas outside Kentucky’s borders for commerce and tourism. Recent FHWA sponsored research¹¹ on the link between interstate construction and economic development suggests that in total, the research supports the proposition that areas with a modestly successful economic development program will have more success with an Interstate highway nearby. Additionally, case studies in which there were recreational and tourism related resources saw a growth in the tourist industry revenue upon completion of the interstate. The I-66 Somerset to London region has the characteristics that, combined with interstate construction, lead to economic growth. The contributing factors in the region include:

- Economic Development Initiatives (included in section 2.7 & 2.8)
- Wealth of Tourism and Recreational Opportunities
- Improved Area Educational Attainment (see section 4.3.4)

With the opportunities, initiatives and resources in the project area, coupled with an interstate facility, an attractive environment for business development would exist within the region.

2.10 Project Status

The proposed project is located on page 320 of the FHWA approved conforming State Transportation Improvement Program (Kentucky Statewide Transportation Improvement Program (STIP), Fiscal Years 2001-2006; Kentucky Transportation Cabinet), and approved October 2000 and is also listed in amendment 2004.109 of the Fiscal Years 2005-2007 STIP, approved March 2005.

¹¹ <http://www.fhwa.dot.gov/planning/econdev/county.htm>

2.11 Decisions that Must Be Made

The purpose of this document is to provide FHWA, KYTC and the public with a full accounting of the effects of the alternatives developed for meeting the study purpose and needs, while ensuring that the decisions are based on an understanding of the environmental consequences. The document considers the environmental impacts of the alternatives and recommends actions that protect, restore and enhance the environment, in accordance with the National Environmental Policy Act.

This DEIS, in addition to public and agency comments, will allow the transportation agencies to make an informed decision that best avoids, minimizes or mitigates any environmental impacts from the project, while meeting the project purpose and need. This decision will be the “preferred alternative” and, should a build alternative be chosen, will be addressed in the Environmental Impact Statement.

2.12 Laws, Regulations and Permits

There are a number of laws, regulations and permits that must be considered throughout the project development process. FHWA and KYTC are required to comply with all present and future laws applicable to actions arising from this undertaking. All applicable permits must be obtained during design, development and prior to project implementation. Examples of governing laws, regulations and permits that the project must comply with are listed below:

- National Environmental Policy Act (NEPA)
- US Army Corps of Engineers Section 404 permit of the Clean Water Act
- Clean Water Act Section 401 permit
- Section 106 of the National Historic Preservation Act
- Section 7 Consultation and Biological Opinion from US Fish and Wildlife Service
- Uniform Relocation and Real Property Acquisition Policies Act
- Clean Air Act
- Council of Environmental Quality (CEQ) Regulations

The project study was performed in accordance with the above mentioned and all additional applicable laws,

regulation and executive orders as outlined in the NEPA process. Other federal, state and local regulations may be applicable for the proposed project and will be addressed throughout the project development process and will be contained in project documentation.

